

Work Order ID 162985

Tuesday, June 20, 2017 2:31:22 PM

162985

Page

Item ID: D412-702-071

Accept

N900040100Setup Start ***NS1**

Revision ID:

Stop ***NS2**

Item Name: Comfort Crew Shoulder Harness

Start Date: 6/20/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 6/29/2017 Req'd Qty: 1.00

1

Customer:

Reference: RA 112489

Approvals: Process Plan:

JUN 20 2017

Date:

Tooling:

Date:

Run Start ***NR1**

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2**

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stam
Draw Nbr	Revision Nbr								
IIN-D412-702-3	B								

107

0.00

107

QC

Quality Control

Memo

Kit was install but not flown.
Replace all hardware per IIN.
Stock with new batch number at
CHG 003.
Add new labels and paper work.

Repackage as per PPP.

D412-702-071
B150153

0.00

① 17.0623

DAS
9
9-89

110

Pick Kit

0.00

110

Packaging

Packaging

Memo

ADD NEW HARDWARE AS PER
IIN

0.00

DAS
28
9-89

JUL 03 2017

DART aerospace				1270 ABERDEEN ST. HAWKESBURY ON, CANADA K6A 1K7 TEL: 1 613 632 5200 www.dartaero.com	
PATENT	N/A			CHG	CHG003
P/N	D412-702-071			STC	SH04-7
DESC.	Shoulder Harness			STC	SR01997NY
LOT	B150183			STC	
MODEL	Bell 205/212/214/412			STC	
TC APPROVAL # 09-89				MADE IN CANADA	
				D2729-4	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
AG 8 4-8				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

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Item ID: D412-702-071 **Accept** ***N900040100*** **Setup Start *NS1***
Revision ID: **Stop *NS2***
Item Name: Comfort Crew Shoulder Harness
Start Date: 6/20/2017 **Start Qty:** 1.00 ***1*** **Cust Item ID:**
Required Date: 6/29/2017 **Req'd Qty:** 1.00 ***1*** **Customer:**
Reference: RA 112489

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Run Start *NR1***
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop *NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC4- 100% Inspect kits for completeness Memo	0.00 0.03				DAS 27 9-89	DAS 		JUL 03 2017
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: Fg029 Packaging Memo REPACKAGE UNDER NEW BATCH NUMBER NEW LABEL AND PAPERWORK @ chg 003 PPP D412-702-071 Location: FG029	0.00 0.00				DAS 28 9-89			JUL 03 2017
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.10							17/7/5 

DAS
21
9-89

JUL 04 2017

Picklist Print

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Work Order ID: 162985

162985

Parent Item: D412-702-071

D412-702-071

Parent Item Name: Comfort Crew Shoulder Harness

Start Date: 6/20/2017

Required Date: 6/29/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A 11.03.01 new issue DD verf:EC
12.09.05 per DSI9612 DD verf:JFS

IPP Rev:B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

AN3-10A		Purchased	No				Each	81.0000		2			
AN3-10A									**			DAS 28 9-89	
Bolt													

DAS
27
9-89

Location	Loc Qty	Loc Code
GA	39	
m136787	39	
over003	-31	
m137321	0	
m137544	-31	
ST349	73	
m137321	4	
m137544	69	

AN3-4A		Purchased	No				Each	288.0000		4			
AN3-4A									**			DAS 28 9-89	
Bolt													

DAS
27
9-89

Location	Loc Qty	Loc Code
ST350	288	
m137478	288	

AN4-6A		Purchased	No				Each	717.0000		2			
AN4-6A									**			DAS 28 9-89	
BOLT													

DAS
27
9-89

Location	Loc Qty	Loc Code
over003	600	
M137464	600	
ST345	117	
M137320	117	

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Work Order ID: 162985

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Parent Item: D412-702-071

D412-702-071

Parent Item Name: Comfort Crew Shoulder Harness

Start Date: 6/20/2017

Required Date: 6/29/2017

Start Qty: 1.00

Required Qty: 1.00

D412-702-071

Manufactured No

Each 2.0000

D412-702-071

Comfort Crew Shoulder Harness

150153

**

1

JUN 20 2017

Location

Loc Qty

Loc Code

FG029

2

161867

2

Each

1,709.000

6

**

MS21042L3

Purchased No

MS21042L3

Nut

Location

Loc Qty

Loc Code

FP001

79

m135945

79

GA

394

m134360

102

M136665

292

OVER007

500

m134360

0

m137886

500

ST303

736

m137495

14

m137680

722

DAS
27
9-89

DAS
28
9-89

6

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Shop Packet Print

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Work Order ID: 162985

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Parent Item: D412-702-071

D412-702-071

Parent Item Name: Comfort Crew Shoulder Harness

Start Date: 6/20/2017

Required Date: 6/29/2017

Start Qty: 1.00

Required Qty: 1.00

MS21042L4

Purchased

No

Each

2,331.000

2

MS21042L4

**

DAS
28
9-89

Nut

Location

Loc Qty

Loc Code

FP001

10

m133363

10

GA

51

m135058

51

OVER007

1400

m137402

400

m137680

1000

ST303

870

m137544

870

2

NAS1149D0332J

Purchased

No

Each

1,069.000

10

NAS1149D0332J

**

DAS
28
9-89

Washer

Location

Loc Qty

Loc Code

FP

211

m136015

8

m137075

203

GA

272

m136643

272

ST264

586

m136015

0

m137412

26

m137736

560

10

DAS
27
9-89

DAS
27
9-89

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Work Order ID: 162985

162985

Parent Item: D412-702-071

D412-702-071

Parent Item Name: Comfort Crew Shoulder Harness

Start Date: 6/20/2017

Required Date: 6/29/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1149D0363J

Purchased

No

Each

746.0000

6

NAS1149D0363.I

**

DAS
28
9-89

Washer

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

43

m134055

13

m137164

30

ST263

703

m137587

703

Each

1,083.000

4

NAS1149D0432J

Purchased

No

NAS1149D0432.I

**

DAS
28
9-89

WASHER

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

24

m131026

24

ST260a

1000

m137459

1000

ST264

59

m134676

59

Each

3,889.000

4

NAS1149D0463J

Purchased

No

NAS1149D0463.I

**

DAS
28
9-89

Washer

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

40

M135056

40

ST260a

2000

M137699

2000

ST263

1849

M137371

1849

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Shop Packet Print

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Inspection Sheet Complete **RA112489**

Customer QA Ref #								0	
Part Number	Batch / Serial #	Quantity	Part Complete	Rev/CHG Current	New Paperwork	New Labels	Disposition	Work order #	Work order instructions
#REF!		#REF!	☐ Yes	☐ Yes	☐ Yes	☐ Yes			
D412-702-071	B160194	1	☒ Yes	☒ Yes	☒ Yes	☒ Yes	STOCK	162984	Kit complete. Repackage as per PPP. Stock with new batch number at CHG 003. Add new labels and paper work.
D412-702-071	B150183	1	☐ Yes	☒ Yes	☒ Yes	☒ Yes	STOCK	162985	Kit was install but not flown. Replace all hardware per IIN. Repackage as per PPP. Stock with new batch number at CHG 003. Add new labels and paper work.
0		0	☐ Yes	☐ Yes	☐ Yes	☐ Yes			
0		0	☐ Yes	☐ Yes	☐ Yes	☐ Yes			
0		0	☐ Yes	☐ Yes	☐ Yes	☐ Yes			

QC Approval: P.D. _____

Date: 20-May-17 _____

25.32 Parts Lists for Dart Pilot/Co-Pilot Shoulder Harness Kits

QTY -071	QTY -073	QTY -075	Part Number	Description
X			D412-702-071	Dart Pilot/Co-Pilot Shoulder Harness Kit
	X		D412-702-073	Dart Pilot/Co-Pilot Shoulder Harness Kit
		X	D412-702-075	Dart Pilot/Co-Pilot Shoulder Harness Kit
1			D4305-041	SHOULDER HARNESS ASSEMBLY
	1		D4305-043	SHOULDER HARNESS
		1	D4305-045	SHOULDER HARNESS
4	4	4	AN3-4A	BOLT
2	2	2	AN4-6A	BOLT
2	2	2	AN3-10A	BOLT
6	6	6	MS21042L3	NUT
2	2	2	MS21042L4	NUT
10	10	10	NAS1149D0332J	WASHER (OR AN960JD10L)
6	6	6	NAS1149D0363J	WASHER (OR AN960JD10)
4	4	4	NAS1149D0432J	WASHER
4	4	4	NAS1149D0463J	WASHER (OR AN960JD416)

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162985

Pa

Item ID: D412-702-071**Accept*****N900040100*****Setup Start *NS1****Revision ID:****Item Name:** Comfort Crew Shoulder Harness**Stop *NS2****Start Date:** 6/20/2017 **Start Qty:** 1.00***1*****Cust Item ID:****Required Date:** 6/29/2017 **Req'd Qty:** 1.00***1*****Customer:****Reference:** RA 112489**Approvals:****Process Plan:****Date:**

JUN 20 2017

Tooling:**Date:****Run Start *NR1****QC:****Date:****SPC (Y/N):****Date:****Stop *NR2**

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stam
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	---------------

Draw Nbr**Revision Nbr**

IIN-D412-702-3

B

107

0.00

107

QC

Quality Control

Memo

0.00

Kit was install but not flown.
Replace all hardware per IIN.
Stock with new batch number at
CHG 003.
Add new labels and paper work.

Repackage as per PPP.

D412-702-071
B150153

① 17.0623

DAS

9

9-89

110

Pick Kit

0.00

110

Packaging

Packaging

Memo

0.00

ADD NEW HARDWARE AS PER
IIN



Transport
Canada

Transports
Canada

Department of Transport

Supplemental Type Certificate

This approval is issued to:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, Ontario
Canada K6A 1K7

Number: SH04-7

Issue No.: 3

Approval Date: February 06, 2004

Issue Date: March 09, 2006

Responsible Office:

Ontario

Aircraft/Engine Type or Model:

BELL 205A-1, 205B, 212, 214B, 214B-1, 412, 412 CF, 412 EP

Canadian Type Certificate or Equivalent:

BELL 205B H-104
BELL 214B, 214B-1 H-80
BELL 212, 412, 412 CF, 412 EP H-86
BELL 205A-1 H1SW

Description of Type Design Change:

Shoulder Harness Kits

**Installation/Operating Data,
Required Equipment and Limitations:**

Manufacture of the Shoulder Harness Kits must be in accordance with Dart Aerospace Ltd. MDL-D412-702, Revision B, approved Jan 17 2006, or later approved revisions.

Installation of the Shoulder Harness Kits must be in accordance with Dart Aerospace Ltd. IIN-D412-702, Revision C, approved Mar 07 2006, or later approved revision.

Maintenance of the Shoulder Harness Kits must be in accordance with Dart Aerospace Ltd. ICA-D412-702, Revision 2, Transport Canada accepted Mar 09 2006, or later Transport Canada accepted revisions.

Operation with the Shoulder Harness Kits must be in accordance with Dart Aerospace Ltd. FMS-D412-702, Revision C, Transport Canada approved Mar 09 2006, or later Transport Canada approved revisions.

Basis of Certification:

The basis of certification for this modification was FAR 29, up to and including Amendment 29-47, except for 29.561, 29.562, and 29.785 at Amendment 29-11.

- End -

Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the modified product.




M. G. Mariotti
For Minister of Transport

Canada